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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,482	01/06/2004	Ki-soo Chang	Q77580	3529

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EXAMINER	
PHAM, TUAN	

ART UNIT	PAPER NUMBER
2618	

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07/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/751,482	CHANG, KI-SOO	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-8, and 11-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-8 and 11-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/27/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 04/27/2007 have been fully considered but they are not persuasive.

In response to applicant's remark on pages 7-8, Applicant argues that the Olkkonen reference does not teach "a control unit for providing, through the user interface, information on the peripheral devices connectable to a wireless communication device, and, if the at least one desired device is selected through the user interface, establishing a connection to only the at least one desired device, and not attempting a connection to undesired devices", as recited in claims 1, 8, and 15.

In response to applicant's arguments as stated above, the Examiner respectfully disagrees with the Applicant's argument. Olkkonen teaches a control unit for providing (it is inherent that the wireless device 100 is included a controller for controlling all the

elements and the application program of the device 100, such as keypad or display), through the user interface (display 212), information on the peripheral devices (telephone, printer, fax) connectable to a wireless communication device, and, if said at least one desired device is selected through the user interface, establishing a connection to only said at least one desired device, out of the peripheral devices (see figure 1, [0123-0140]), and not attempting a connection to undesired devices (it is clearly seen in figure 1, if the user want to select a printer or fax in the ad hoc network. The user can select step b in the sub menu, for example, if the user want to fax some document from the device 100, the use can only select the fax machine in the ad hoc network and the device 100 only communicated with the fax machine in the ad hoc network to send the data at that time, and not to connect to other devices in the ad hoc network, [0094]). Therefore, the teaching of Olkkonen reference still read on.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6-8, 11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olkkonen et al. (Pub. No.: U.S. 2005/0088980, hereinafter, Olkkonen") in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune").

Regarding claim 1, Olkkonen teaches a Bluetooth wireless communication

apparatus (see figure 1, Bluetooth wireless device 100) for identifying devices connectable to ad-hoc networks (see figure 1, wireless device 100 connects to Ad HOC network 102, 112), comprising:

a user interface enabling a user to select at least one desired device among peripheral devices (see figure 1, figure 3B, display 212, [0123-0140]); and

a control unit for providing (it is inherent that the wireless device 100 is included a controller for controlling all the elements and the application program of the device 100, such as keypad or display), through the user interface (display 212), information on the peripheral devices (telephone, printer, fax) connectable to a wireless communication device, and, if said at least one desired device is selected through the user interface, establishing a connection to only said at least one desired device, out of the peripheral devices (see figure 1, [0123-0140]), and not attempting a connection to undesired devices (it is clearly seen in figure 1, if the user want to select a printer or fax in the ad hoc network. The user can select step b in the sub menu, for example, if the user want to fax some document from the device 100, the use can only select the fax machine in the ad hoc network and the device 100 only communicated with the fax machine in the ad hoc network to send the data at that time, and not to connect to other devices in the ad hoc network, [0094]), and

wherein the control unit sends an inquiry to search for said connectable peripheral devices (see [0114-0140], the mobile 100 send an inquiry message when arrives within AD HOC network), receives inquiry responses including device information from said at least one of said peripheral devices that has received the

inquiry (see [0114-0140], the mobile 100 receives the response from slave in the AD HOC network), and provides information on said at least one of the peripheral devices that received the inquiry (see [0114-0140], mobile 100 will display the device, which detect in AD HOC network on the display 212).

It should be noticed that Olkkonen fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Olkkonen in order to carry the information for transmitting the data between the master and slave in the piconet.

Regarding claim 4, Olkkonen further teaches a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string (see figure 1, display 212).

Regarding claim 6, Olkkonen further teaches the control unit sends an inquiry to search for a first group of peripheral devices in a directly connectable wireless range (see figure 1, mobile 100 sends inquiry message to AD HOC network 102), receives inquiry responses including device information from at least one of the peripheral devices that has received the inquiry (mobile 100 receive the response from slave in

piconet, [0099-0100]), and, if service attributes of said at least one of the peripheral devices is collected from the received device information and said at least one of the peripheral devices has one of a group ad-hoc network ability and scatternet ability (piconet)([0029-0045), searches for said at least one of the peripheral devices connectable to corresponding devices and further displays the connectable corresponding devices as information on said at least one of the peripheral devices (see figure 1, display 212, [0114-0140]).

Regarding claim 7, Olkkonen further teaches if the received service attributes one of support a group ad-hoc network service and indicate the scattemet ability, the control requests the corresponding devices to discover more peripheral devices (see figure 1A, AD HOC network and piconet network suck as Bluetooth, [0114-0140]).

Regarding claims 8 and 15, Olkkonen teaches a wireless communication method of indicating devices connectable to ad-hoc networks for a Bluetooth-embedded wireless communication apparatus (see figure 1, Bluetooth wireless device 100) which has an input unit for enabling a user to input desired values (see figure 1, keypad 208) and a display unit for displaying various information (see figure 1, display 212), the wireless communication method comprising steps of:

providing through the display unit information on peripheral devices in a range connectable to the wireless communication apparatus (see figure 1, display 212, [0081-0087]); and

if a device to which the user wants to connect is selected through the input unit, establishing a connection to only the device to which the user wants to connect,

and not attempting a connection to device to which the user does not want to connect (see [0114-0140], it is clearly seen in figure 1, if the user want to select a printer or fax in the ad hoc network. The user can select step b in the sub menu, for example, if the user want to fax some document from the device 100, the use can only select the fax machine in the ad hoc network and the device 100 only communicated with the fax machine in the ad hoc network to send the data at that time, and not to connect to other devices in the ad hoc network),

wherein the step of providing information through the display unit comprises steps of sends an inquiry to search for said connectable peripheral devices (see [0114-0140], the mobile 100 send an inquiry message when arrives within AD HOC network), receives inquiry responses including device information from said at least one of said peripheral devices that has received the inquiry (see [0114-0140], the mobile 100 receives the response from slave in the AD HOC network), and provides information on said at least one of the peripheral devices that received the inquiry (see [0114-0140], mobile 100 will display the device, which detect in AD HOC network on the display 212).

It should be noticed that Olkkonen fails to teach the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message, and the unused portions of the FHS packet are an Undefined field and an AM ADDR field. However, Rune teaches such features (see figure 4, col.4, ln.50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rune into view of Olkkonen

in order to carry the information for transmitting the data between the master and slave in the piconet.

Regarding claim 11, Olkkonen further teaches a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string (see figure 1, display 212).

Regarding claim 13, Olkkonen further teaches the control unit sends an inquiry to search for a first group of peripheral devices in a directly connectable wireless range (see figure 1, mobile 100 sends inquiry message to AD HOC network 102), receives inquiry responses including device information from at least one of the peripheral devices that has received the inquiry (mobile 100 receive the response from slave in piconet, [0099-0100]), and, if service attributes of said at least one of the peripheral devices is collected from the received device information and said at least one of the peripheral devices has one of a group ad-hoc network ability and scatternet ability (piconet)([0029-0045), searches for said at least one of the peripheral devices connectable to corresponding devices and further displays the connectable corresponding devices as information on said at least one of the peripheral devices (see figure 1, display 212, [0114-0140]).

Regarding claim 14, Olkkonen further teaches if the received service attributes one of support a group ad-hoc network service and indicate the scattemet ability, the control requests the corresponding devices to discover more peripheral devices (see figure 1A, AD HOC network and piconet network suck as Bluetooth, [0114-0140]).

5. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olkkonen et al. (Pub. No.: U.S. 2005/0088980, hereinafter, Olkkonen") in view of Rune et al. (U.S. Patent No.: 6,901,057, hereinafter, "Rune") as applied to claims 1 and 8 above, and further in view of Muthuswamy et al. (U.S. Patent No.: 2004/0204151, hereinafter, "Muthuswamy").

Regarding claims 5 and 12, Olkkonen and Rune, in combination, disclosed all the limitation of claims 5 and 12, except speaker for producing sound. However, Muthuswamy teaches such features (see figure 4, speaker 308).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muthuswamy into view of Olkkonen and Rune in order to provide the audio to the user.

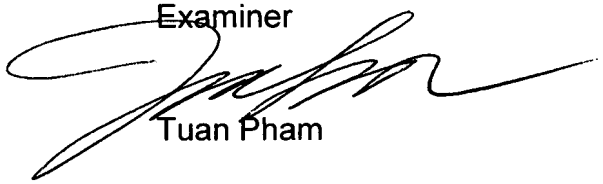
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Technology 2600
Art Unit 2618
June 25, 2007
Examiner



Tuan Pham